

WHAT IS CLAIMED IS:

1           1.     A method for assigning intelligent peripheral resources of a network,

2     comprising:

3                 receiving a request for an intelligent peripheral service from a first  
4     requesting element of any element in the network;

5                 identifying an intelligent peripheral resource in response to the request;

6     and

7                 assigning the identified intelligent peripheral resource to the first  
8     requesting element.

1           2.     The method of claim 1, further comprising:

2                 grouping the intelligent peripheral resources into one or more groups;

3                 forwarding the request from a first group to a second group if intelligent  
4     peripheral resources of the first group that received the request is not sufficient to meet  
5     the request.

1           3.     The method of claim 1, further comprising:

2                 grouping the intelligent peripheral resources into one or more groups, the  
3     request being received by and assigned to a first group;

4                 receiving an additional request in the first group for another intelligent  
5     peripheral service from a second requesting element; and

6                 assigning intelligent peripheral resource of the first group to the second  
7     element if such intelligent peripheral resource is available in the first group.

1           4.     The method of claim 1, wherein the intelligent peripheral resources are  
2     supplied by one or more intelligent peripherals, the identifying step identifying one of the  
3     intelligent peripherals that is able to satisfy the request, the assigning step assigning the  
4     identified intelligent peripheral to the request.

1           5.     The method of claim 1, wherein the request is received from a  
2     packet-based media stream.

1                   6.     The method of claim 1, wherein the request is received from a  
2 circuit-switched based media stream.

1                   7.     A concentrator for connecting intelligent peripherals to a network,  
2 comprising:  
3                   at least one intelligent peripheral interface that connects one or more  
4 intelligent peripherals;  
5                   at least one network interface; and  
6                   at least one routing device coupled to the at least one intelligent  
7 peripheral interface and the routing device for selectively directing information from the  
8 network to the intelligent peripheral.

1                   8.     The concentrator of claim 7, further comprising:  
2                   at least one processor for processing information from the network and  
3 information from the intelligent peripheral; and  
4                   a memory for storing at least one of intelligent peripheral status, request  
5 information, capability information and network information.

1                   9.     The concentrator according to claim 7, wherein the connection point for  
2 connecting to the network uses one of packet-based or circuit-switched based technology.

1                   10.    The concentrator according to claim 7, wherein the connection point for  
2 connecting to the network uses at least one of TDM, ATM, IP, SONET, X.25 and ISDN.

1                   11.    The concentrator according to claim 7, wherein at least one of the routing  
2 device for directing information and the processor for processing information performs a  
3 media format translation function.

1                   12.    A system for utilizing intelligent peripheral resources of a network,  
2 comprising:  
3                   at least one device coupled with at least one first switch, the switch being coupled  
4 with at least one other switch through the network;  
5                   at least one intelligent peripheral concentrator coupled with the first switch

6 through the network; and  
7 at least one intelligent peripheral coupled with the intelligent peripheral  
8 concentrator.

1 13. The system according to claim 12, further comprising:  
2 at least one service control point connected to the switch through the network.

1 14. The system according to claim 13, wherein the service control point  
2 directs telephone calls to the intelligent peripheral concentrator or to another network  
3 resource.

1 15. The system according to claim 12, wherein the switch handles media  
2 streams in TDM or packetized format.

1 16. The system according to claim 12, wherein the intelligent peripheral  
2 concentrator performs media format translation between a packet-based and a circuit-  
3 based technology, and between different packet-based technologies.

1 17. The system according to claim 12 wherein the intelligent peripheral  
2 performs at least one of digit collection, voice and video playback, announcement  
3 playback, voice and video recording, music recording and playback, collect call  
4 processing, forwarding requests and information, pager notification and telephonic alerts.

1 18. The system according to claim 12 wherein the intelligent peripheral  
2 concentrator performs a resource allocation function by determining the status and  
3 capability of the intelligent peripheral resources and assigning a request to an intelligent  
4 peripheral based on the determination.

1 19. The system according to claim 12, wherein the connections are at least one  
2 of conventional telephone lines, digital transmission facilities, fiber optic lines, direct  
3 serial/parallel connections, wireless connections, cellular telephone connections, satellite  
4 communications, local area networks and intranet connections.

1 20. An apparatus for assigning intelligent peripheral resources of a network,

2 comprising:  
3 a network interface; and  
4 a controller coupled with the network interface that receives a request from  
5 a network device for the intelligent peripheral resources, determines an availability of the  
6 intelligent peripheral resources in response to the request and assigns the network device  
7 to an intelligent peripheral resource based on the availability of the intelligent peripheral  
8 resources.